Translation of Original operating manual

pewag winner profilift

PLEW pewag winner profilift eta lifting point

This operating manual is an integral part of the product.
It has to be made available to the operator for the duration of its service life and has to be passed on to the next owner or operator along with the product.

This operating manual is subject to a continuous improvement process; only the most recent version is deemed valid. It is available as a download on www.pewag.com.

This product is designed to be used in compliance with this manual as well as the national regulations for the lifting and holding of loads. It may only be used if the user manual has been fully read and understood.

The colour-highlighted text in this manual indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. Please read this additional advice carefully.

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PLEW pewag winner profilift eta lifting point

This operating manual is valid for:
PLEW pewag winner profilift eta lifting point

Size
PLEW 1,5 t - PLEW 19 t
PLEW 3000 daN - PLEW 20000 daN

Please read this operating manual carefully before using the product, paying particular attention to the sections on Safety and Mounting.
This product may only be used once all the points in this manual have been fully understood.

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1. SAFETY INSTRUCTIONS

WARNING **A wrongly mounted or damaged lifting point as well as improper use can increase the risk of accidents leading to injuries and/or death! Damaged lifting points (see maintenance instructions) can fail even under normal circumstances – they must not be used.**

- Only competent persons are allowed to use this product. They must be familiar with and apply all relevant standards and country-specific regulations.
- The user of this product must be in good health. He/she is not allowed to be under the influence of drugs, alcohol or medication.
- Please make sure that in the event of an emergency, a rescue plan is available that includes all possible emergencies.
- Check for visible damage (deformations, cracks) prior to each use and ensure that the product is functioning correctly – brackets have to be tiltable (alignable with the load direction). Ensure that the product has not been modified in any way.
- All repairs must be undertaken in accordance with the instructions specified by pewag.
- Loading must always take place in the stated direction (fig. 1 under section 2 of this manual), with the maximum load capacity according to table 1 and taking into consideration the operating conditions stated in section 2.
- This product is not intended for the lifting or holding of persons.

Method of lifting										
Number of legs	**1**	**1**	**2**	**2**	**2**	**2**	**3+4**	**3+4**	**2**	**3+4**
Angle of inclination	**0°**	**90°**	**0°**	**90°**	**0°–45°**	**45°–60°**	**0°–45°**	**45°–60°**	**unsymm.**	**unsymm.**
Code	**Load capacity G [kg]**									
PLEW 1.5 t	2,500	1,500	5,000	3,000	2,100	1,500	3,100	2,200	1,500	1,500
PLEW 2.5 t	4,000	2,500	8,000	5,000	3,500	2,500	5,300	3,700	2,500	2,500
PLEW 4 t	6,000	4,000	12,000	8,000	5,600	4,000	8,400	6,000	4,000	4,000
PLEW 6.7 t	10,000	6,700	20,000	13,400	9,400	6,700	14,200	10,000	6,700	6,700
PLEW 10 t	15,000	10,000	30,000	20,000	14,100	10,000	21,200	15,000	10,000	10,000
PLEW 19 t	25,000	19,000	50,000	38,000	26,800	19,000	40,300	28,500	19,000	19,000

Table 1: Load capacity

Reduction factors

Temperature	below -20 °C	-20 °C to 200 °C	200 °C to 300 °C	300 °C to 400 °C	above 400 °C
Reduction factor	Not permissible	1	0.9	0.75	Not permissible
Shock loading	Slight shocks	Medium shocks	Strong shocks		
Reduction factor	1	0.7	Not permissible		

Table 2

2. Intended use

Purpose: The pewag PLEW is a lifting point that is welded onto loads so that lifting chain components (hooks, shackles, straps...) may be attached to enable the load to be lifted.

Lashing: The lifting points may also be used as lashing points. In this case, the admissible lashing capacity is twice the nominal load capacity. LC in daN = 2x load capacity in kg (e. g. nominal load capacity of 4000 kg for lifting -> 8000 daN admissible lashing capacity). This product may only be used for lifting or lashing. Once a lifting point has been used for lashing, it may no longer be used for lifting (and vice versa). Products that are marked with the permissible lashing capacity instead of the work load limit may only be used for lashing and never for lifting.

Load: Loading must always take place in the stated direction (fig. 1) with the maximum load capacity according to table 1 and taking into consideration the operating conditions as specified here.

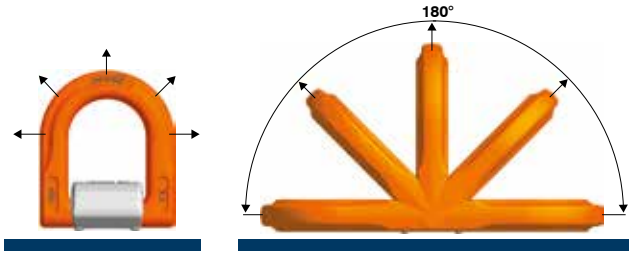


Fig. 1: Permissible pull directions that occur when used correctly.

Operating temperature:
The long-term permitted ambient temperature must be between -20 °C to 200 °C. Outside this range, the reduction factors according to table 2 must be taken into account.

Impacts: The lifting point is designed to withstand impacts resulting e.g. from acceleration when lifting and lowering loads.

Other: Use only original parts for the assembling of the lifting point. Please note the reduction factors as specified in table 2. The ring is 180° foldable and must be aligned in the direction of the pull before loading.

Markings at 45° and 60° simplify the estimation of the angle of inclination of chain slings and therefore the permitted directions of pull.

2.1 Limitations of use

- PLEW lifting points are not to be used in areas with highly corrosive influences (e.g. sewage or chemicals etc.). They must not be exposed to acids and alkalis or their fumes. Please consult our technical service on advice for using the products in aggressive environments.
- The lifting points must not be used over edges or corners.
- Ring must not be folded up and down continuously while under load.
- This product must not be used for the lifting or securing of persons.
- If the load distribution is asymmetrical (unequal angle of the legs of the lifting gear), count only 1 leg as bearing.

WARNING **The information contained in this operating manual is based on the assumption that no particularly hazardous conditions apply.**
Such conditions include offshore use and use in areas with nuclear contamination.
In such cases, please contact pewag to determine the permissibility of the application and the degree of danger.

2.2 Foreseeable improper operation

- Operation by unskilled persons.
- Operation by persons who do not understand the language used in this manual and therefore do not fully understand what they are reading.
- Attachment to objects for which no instruction manual or strength verification is present or available
- Attachment of lifting devices for which no instruction manual or inspection based on applicable standards is present or available.
- Welding performed by persons who have not passed the test required by applicable standards.
- Use of filler metals other than those specified in this instruction manual.

2.3 Identification

Each pewag PLEW lifting point has been stamped with the maximum load capacity for adverse load distribution, manufacturer and batch identification. Fig. 2 shows the exact identification details on the product.

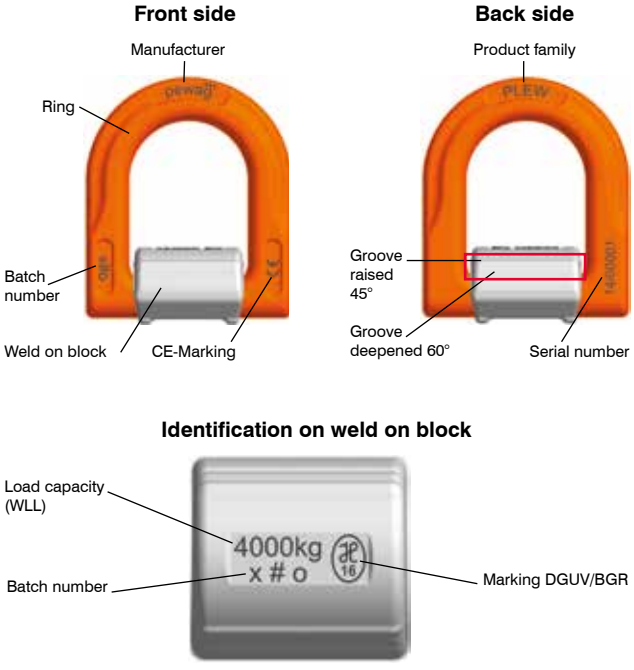


Fig. 2: Component description and location of identification details on product.

3. Mounting Instructions

3.1 General

- Mounting must only be carried out by persons who have received instructions on the safe use of the product and who have the required knowledge and skills for the task.
- Choose lifting points that are sufficiently large based on load capacities table 1, depending on the size of your load and the arrangement of the lifting points.
- The material of the object to which the lifting points are weld-on, must be able to absorb the applied forces without deformations (safety evidence).
- Choose the layout of the lifting points in a way that ensures the symmetrical distribution of the load and positions the centre of gravity underneath the lifting point(s).
  When choosing the position of the lifting points, make sure to avoid incorrect loading, for instance if:
  - There is no possibility to align in the pull direction.
  - The pull direction is not in the specified area acc. to fig. 1.
- Always check whether any limitations of use apply.
- Mount the lifting points in such a way that they may be reached with ease and without obstructions when attaching/removing the connection element. Also make sure that the lifting points are affixed in such a way that no dangerous areas are produced that may endanger the user or prevent correct use (bruising, shearing, trapping or bumping).
- Only original pewag parts may be used – recognisable by the stamping (Manufacturer, Batch number, ...).
- The delivery condition may not be changed.
  The delivery condition may not be changed. It is not permitted to perform mechanical machining, heat and/or surface treatments with material-damaging effects (e.g. electro galvanised).
- Always refer to the user manual and mounting instructions for the lifting points used and, where applicable, also for the load to be lifted.
- Only use non-defective lifting points
- Used lifting points must be checked according to the maintenance instructions prior to each use (section 4.1 and 4.2).
- Ensure prior to each use that the lifting point has been attached correctly and that it is in a flawless condition.
- The attached lifting device (e.g. hook) must be free to move within the ring.
- Keep the lifting points clean and dry.

3.2 Safety measures to be taken by the user

Please refer to the limitations of use and the maximum capacity of the lifting points used. Always wear protective gloves when attaching the lifting device.
Align the lifting point in the expected direction of pull and leave the hazard area before the load is lifted.

WARNING **Keep a sufficient safety distance during the lifting operation and ensure that the load has been lowered safely before removing the lifting device. Do not overload lifting points! Falling loads may cause injury and/or death!**

3.3 Residual risks

Overloading by not respecting the maximum load capacities or due to undue environmental influences (temperature, etc.). Wrong adjustment of the lifting points can also lead to failing, as can the use of non-authorised or damaged parts of the attached lifting device.

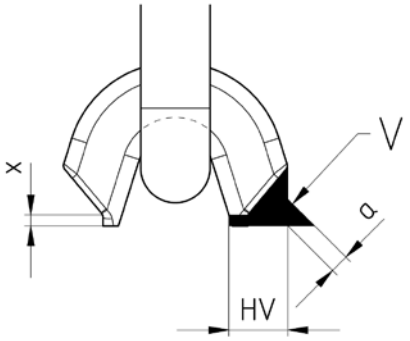
3.4 Mounting

- Persons welding this product have to be in possession of a valid qualification acc. to EN ISO 9606-1. Basically, the local mandatory regulations of the respective country apply (For USA: Welder is to be qualified acc. to AWS American Welding Society and/or ASME American Society of Mechanical Engineers).
- The surface of the part to be welded has to be thoroughly cleaned before starting to weld. Damp, dirt, oil, color, tinder, etc. have to be removed.
- The verification of the basis material suitability for welding (counter part of the lifting point), the analytical and strength equivalence of the basis material to the pewag part and the degree of safety of the whole device is the responsibility of the welding company.
- Material of weld on block: S355.
- The part on which the lifting point will be welded must be able to resist the load and load application on the desired place.
- After welding, the weld-on block and the welding seam should be protected against corrosion (e.g. by varnishing).

3.5 Execution of the welding seam

- Select the pre-heating and the interpass temperature as well as the build-up sequence in accordance with the material thickness and the grade of the basic material.
- The root seam must be cleaned carefully prior to adding more subsequent weld runs and the final run.
- The nubs on the weld-on bracket determine the gap for the root seam and must not be removed.
- Ensure that the weld metal does not touch the orange ring/ the metal spring. After welding, the ring must be rotatable by 180° without jamming.
- The weld metal must be placed in such a way as to cover the entire cross-section of the welding seam.

Examples of filler metals:
MAG – wire: ISO 14341: G3 Si 1 / AWS A5.18: ER 70 S-6
Stick – electrode: EN ISO 2560 A: E 42 5 B 4 2 H5 or
E 42 6 B 3 2 / AWS A5.1: E7018-1 / AWS 5.5: E8018-G



Picture 2: Weld seam geometry
x = Distance nap for root seam (2 - 3 mm)

	Weld seam		
	Dimension	**Length [mm]**	**Volume [cm³]**
PLEW 1,5 t	HV 8 + ◣ a3	2 x 35 mm	≈ 3,3 cm³
PLEW 2,5 t	HV 9 + ◣ a3	2 x 41 mm	≈ 4,7 cm³
PLEW 4 t	HV 10 + ◣ a4	2 x 45 mm	≈ 6,8 cm³
PLEW 6,7 t	HV 14 + ◣ a4	2 x 56 mm	≈ 14,9 cm³
PLEW 10	HV 17 + ◣ a5	2 x 61 mm	≈ 24,1 cm³
PLEW 19 t	HV 24 + ◣ a6	2 x 89 mm	≈ 67,5 cm³

4. Maintenance, inspection, repairs

WARNING **The safety of the user is contingent upon the effectiveness and durability of the equipment used. For this reason, ensure that inspections are performed regularly. Damaged lifting points may fail during normal conditions of use, causing the load to fall. Such lifting points may not be used.**

- This product must be checked by a competent person at least annually in accordance with all the manufacturer's information. This interval may be shorter, depending on operational conditions and legal regulations. In case of frequent use, a crack test must be performed every 2 years.
- During inspection, all parts need to be checked for damages that could impair safety and function of the product.
- For regular inspections as well as crack tests, all parts must be free from oil, dirt and rust. Appropriate cleaning procedures are procedures that do not overheat, hide surface defects and cause hydrogen embrittlement or stress crack corrosion.

"Competent person" refers to someone who, in view of his or her expert training and experience, has sufficient knowledge in the field of lifting points and is sufficiently familiar with the relevant national standards and regulations to be able to assess the safe-for-working state of the product as well as its intended use.

4.1 Inspection

Check the following points before each usage:
- Correct selection of lifting points based on the size of the load.
- Flawless functioning (folding of the ring) and appearance of parts and the weld seam.
- The ring of the lifting point used must be rotated to face the direction of the pull.

Regular inspection:
Regular inspections must be performed by the manufacturer or a competent person under strict compliance with the manufacturer's information.

4.2 Elimination criteria

- Breakage, deformation, sharp notches and/or cracks of any kind.
- Any sign of exposure to high heat.
- Reasonable doubts on the functionality and/or safety of the lifting points.
- Illegible markings.
- Wear or excessive corrosion resulting in a cross-sectional reduction more than 10 %.
- In case of cracks or other damage to the welding seam.

CAUTION **If there is any doubt on the correct functioning/ safety of the lifting point, it must be discarded!**

4.3 Accident and incident procedure

If the lifting device becomes jammed in the ring of the lifting point, do not apply force in order to prevent further damage. If the lifting point becomes deformed (e.g. due to overloading) or other exceptional circumstances apply, the product must immediately be removed from operation and handed to a competent person for inspection/repair.

4.4 Maintenance

- If necessary, clean product with a damp cloth and leave to dry naturally.

4.5 Repairs

- Repairs may only be carried out by the manufacturer or a competent person.
- Welding (to repair purposes) and heat treatment are not permitted.
- If small defects like notches or score marks are visible you can remove them with carefully polishing or filing. After repairs, repairs area must be intergradient, without a sudden change in cross-section. Due to complete elimination of the error may be the cross-section by no more than 5 % decreases.
- Inspections and repairs need to be fully documented and remain with the product for the duration of its operating life. A documentation reference sheet can be downloaded at www.pewag.com.

Each lifting point is stamped with a unique serial number based on the template “JJ/xxxx“. “JJ” refers to the year (e.g. 13 for 2013) and “xxxx” is the unique category number.

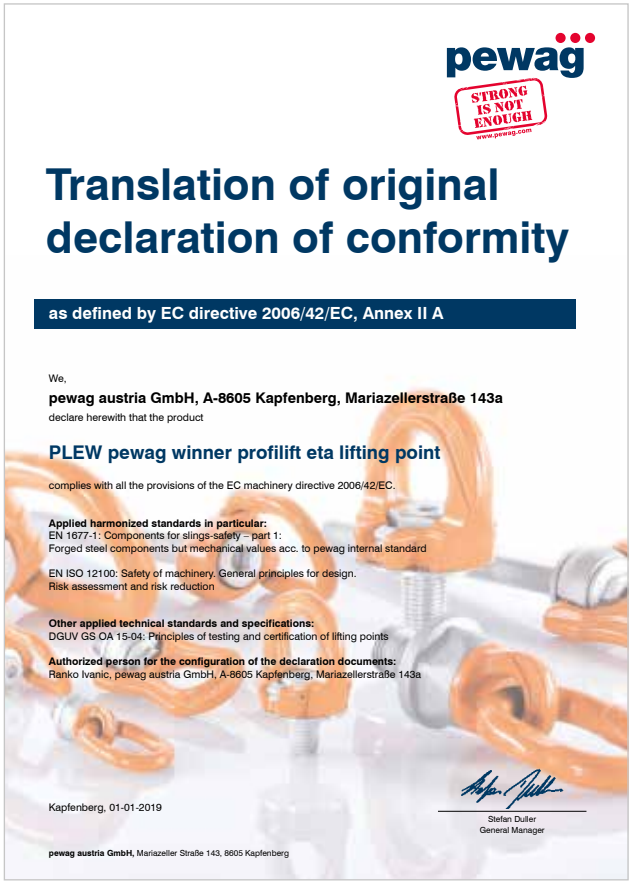
5. Storage

Store the lifting point after it has been cleaned, dried and protected against corrosion (e.g. lightly oiled). During storage or transportation, make sure the product is not exposed to corrosive, thermal or mechanical influences.
This information applies to both before and after welding on the final product.

6. Decommissioning

This lifting point is made of metal and is 100 % recyclable. At the end of its service life, the product should be recycled as scrap metal.

7. Declaration of conformity



pewag

STRONG IS NOT ENOUGH
www.pewag.com

Translation of original declaration of conformity

as defined by EC directive 2006/42/EC, Annex II A

We,
pewag austria GmbH, A-8605 Kapfenberg, Mariazellerstraße 143a
declare herewith that the product

PLEW pewag winner profilift eta lifting point

complies with all the provisions of the EC machinery directive 2006/42/EC.

Applied harmonized standards in particular:
EN 1677-1: Components for slings-safety – part 1:
Forged steel components but mechanical values acc. to pewag internal standard

EN ISO 12100: Safety of machinery. General principles for design.
Risk assessment and risk reduction

Other applied technical standards and specifications:
DGUV GS OA 15-04: Principles of testing and certification of lifting points

Authorized person for the configuration of the declaration documents:
Ranko Ivanic, pewag austria GmbH, A-8605 Kapfenberg, Mariazellerstraße 143a

Kapfenberg, 01-01-2019

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